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EXAMINER	
DONAHOE, CASEY D	
ART UNIT	**PAPER NUMBER**
3732	

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/807,910	HERMANN, GABOR	
	Examiner	Art Unit	
	Casey Donahoe	3732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) 1-48 is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) 1-4,6,7,10-39 and 40-48 is/are rejected.

7)☒ Claim(s) 5,8,9 is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 7/22/2004.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the spring type energy accumulator must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 19-25 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. The specification states that the contacting elements are movable away from each other "against" the action of the energy accumulator in order to attenuate the pressure exerted on the tooth and prevent from destroying it (page 8, 3rd full paragraph). However, an energy accumulator as claimed, would actually act in an opposite manner, forcing the contacting elements towards each other, enhancing the pressure on the tooth, and increasing the possibility that the tooth is damaged. This contradicts the intended purpose as well as the function of the claimed elastic clamping arm (claim 24), which resists the jaws coming together. Because contradicting facts have been disclosed, it is unclear as to which way the energy accumulator is to act.

Specification

The disclosure is objected to because of the following informalities: The same inconsistencies serving as the basis of the 112-2nd paragraph rejection above should be corrected in the specification. Appropriate correction is required.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-3, 10-16, and 26-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joeckel (US 3,859,874)

Regarding claims 1-3, Joeckel discloses a pair of forceps, including two contacting elements, adjustable in their mutual spacing in a clamping direction by a handling device such that the contacting elements may be brought from an applying position into a locked extracting position. Joeckel fails to disclose a method by which the forceps may be used specifically in a dental field to extract teeth. Joeckel states that forceps of the type disclosed are well known and continues to say that this design is adapted for pushing and pulling or twisting operations and especially useful for withdrawing an object (column 1, lines 6-11, 25-36). Because this design allows the forceps to lock in closed position so they may be used in pushing and pulling or twisting, it would have been obvious to one of ordinary skill in the art at the time of the invention

to use forceps of this design specifically in tooth extraction operations. Any tooth extraction method involving forceps type instruments inherently includes the steps of applying and grasping the instrument, fixing the instrument on the tooth by transferring it from an open applying position to a closed extracting position, and performing extracting movements on the tooth. Furthermore, it would have been obvious to one of ordinary skill in the art at the time of the invention to adapt the spacing of the contacting elements of the forceps disclosed by Joeckel to the diameter of the tooth before applying the instrument, so that the contacting elements are correctly spaced to tightly grip the tooth, which may then be removed as quickly as possible without prolonging the extraction process.

Regarding claim 10, the two contacting elements may be swiveled about a swivel axis relative to each other.

Regarding claim 11, one contacting element is supported via an articulated knee lever on the other contacting element, wherein the articulated knee lever comprises two parts mounted on each other for swivel movement about a joint swivel axis, and wherein one of the two contacting elements and one of the two parts of the knee lever carry grip elements via which they may be swiveled relative to each other.

Regarding claim 12, a distance of the joint swivel axis from the grip element of the other contacting element is smaller in the extracting position than in the applying position.

Regarding claim 13, the articulated knee lever is moved by swiveling the two grip elements relative to each other, during transition from an applying position to an extracting position, through a dead center position of the joint.

Regarding claim 14, the handling device is acted upon with an actuating force substantially parallel to the clamping direction in order to overcome the dead center position.

Regarding claim 15, a supporting point of the knee lever is adjustable at one end.

Regarding claim 16, a maximum or minimum spacing of the contacting elements is inherently set whenever the supporting point on the knee lever is adjusted.

Regarding claim 26, the handling device comprises a stop (36).

Regarding claim 27, the stop is arranged on the joint part of the articulated knee lever, which connects the two grip portions of the instrument.

Regarding claim 28, the handling device is actuated until at least part of the handling device strikes the stop.

Regarding claim 29, the articulated knee lever passes through the dead center position before striking the stop.

Regarding claims 30 and 31, the instrument includes holders (12, 20) for carrying the contacting elements.

Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Joeckel as applied to claims 1-3, 10-16, and 26-31 above, and further in view of Lisota (US 2,704,476)

Joeckel discloses the forceps described earlier, but does not specifically describe a preferred method for adjusting the spacing of the contacting elements prior to extracting the tooth, or whatever the work piece may be. Lisota discloses a similar knee lever type wrench in which the maximum spacing is set only slightly greater than the diameter of the work piece before the pliers are transferred to an applying position (column 2, lines 54-59). It would have been obvious to one of ordinary skill in the art at the time of the invention to preset the maximum spacing of the contacting elements to a value slightly greater than the diameter of the tooth to be extracted. This provides the quickest way to approximate the best grip for the tooth and then directly apply the instrument to the tooth. All values below 25% greater than the diameter of the tooth fall within obvious ranges of values, which are "slightly greater".

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joeckel as applied to claims 1-3, 10-16, and 26-31 above, and further in view of Schur et al. (US 5,357,829).

Joeckel discloses the forceps described earlier, but does not specifically describe a preferred method for adjusting the spacing of the contacting elements prior to extracting the tooth, or whatever the work piece may be. Schur et al. discloses a similar knee lever type pair of pliers in which the minimum spacing is preset to just firmly

engage the inner-most diameter of the work piece. It would have been obvious to one of ordinary skill in the art at the time of the invention to use the adjusting method disclosed by Schur et al. to preset the minimum spacing of the forceps disclosed by Joeckel to just slightly less than the diameter of the tooth in order to provide strong gripping pressure, which will facilitate extraction of the tooth. By presetting the minimum spacing, an accurate spacing, which will provide strong extraction pressure yet not too much pressure to crush the tooth can be achieved. In order to preset the minimum spacing the instrument must be brought close to the tooth so the diameter can be visually approximated.

Claims 17 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joeckel as applied to claims 1-3, 10-16, and 26-31 above, and further in view of Finn (US 4,274,312)

Joeckel discloses the forceps described earlier, but fails to disclose a spindle drive and slide sleeve. Finn discloses a similar knee lever type wrench in which includes a spindle and slide sleeve. The design disclosed by Finn provides an alternative form, which would be expected to perform equally well with the form disclosed by Joeckel. It would have been obvious to modify the design disclosed by Joeckel to the form disclosed by Finn, including the spindle and slide sleeve, in order that the total range available is visible to the user. Because the length of the spindle, which controls the adjustment, is visible to the user, the relative degree of spacing may be visualized by the user at any point in the adjustment. This offers the convenience of

letting the user easily estimate how much further in either direction the forceps may be adjusted.

Claims 20, 23, and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joeckel and Schur as applied to claims 1-3, 10-16, 26-31, and 6-7 above, and further in view of Mathys (US 5,674,244)

Joeckel discloses the forceps described earlier, but fails to disclose an elastic clamping arm. Mathys discloses that it is well known for pliers to be made pliable and elastic so that all objects can be gripped tightly (column 1, lines 44-47). It would have been obvious to one of ordinary skill in the art at the time of the invention to make the clamping arms disclosed by Joeckel elastic so that the teeth can be gripped tightly, with extra precaution against damaging the teeth provided in the inherent elasticity of the clamping arm.

Claims 32-39 and 41-43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joeckel as applied to claims 1-3, 10-16, and 26-31 above, and further in view of Dworschak et al. (DE 10044939)

Joeckel discloses the forceps described earlier, but fails to disclose contacting elements mounted for rotation and specifically designed to engage a tooth. Dworschak et al. discloses tooth extraction forceps with jaws specifically designed for proper engagement on a tooth to be extracted. It would have been obvious to one of ordinary

skill in the art at the time of the invention to modify the forceps for general use disclosed by Joeckel with the contacting elements disclosed by Dworschak et al. in order that the forceps may be better adapted for tooth extraction.

Regarding claims 32-34, the contacting elements (9) disclosed by Dworschak et al. are mounted on a holder (2) for rotation about an axis arranged transversely to the clamping direction and parallel to the swivel axis of the instrument.

Regarding claims 35, at least one of the contacting elements comprises two contacting surfaces arranged adjacent each other on opposite sides of the axis of rotation and constructed so as to place themselves substantially in the form of a point or substantially parallel to the axis of rotation in the form of a line on the tooth.

Regarding claims 36 and 37, the contacting element with two adjacent contacting surfaces comprises in cross section two convex sections separated from each other by a recess, which is of arc-shaped construction and passes tangentially into the adjacent arc-shaped convex sections.

Regarding claims 38, 39, and 42, the contacting surfaces extend in the direction of the axis of rotation parallel thereto, inclined slightly away from the axis of rotation towards the free end of the contacting elements and in the direction towards the tooth.

Regarding claim 41, the second contacting element comprises a single contacting surface which is constructed so as to place itself substantially in the form of a point or substantially parallel to the axis of rotation of the first contacting element in the form of a line on the tooth.

Regarding claim 43, the contacting surfaces of the contacting elements have shapes adapted to the tooth.

Claims 44 and 45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joeckel as applied to claims 1-3, 10-16, and 26-31 above, and further in view of Lukase et al. (US 5,044,954)

Joeckel discloses the forceps described earlier, but fails to disclose exchangeable contacting elements. Lukase et al. disclose exchangeable insert-type contacting elements, selected in accordance with the shape of the tooth, which allow sufficient force to be applied without damaging a crown, if one is to be removed. Furthermore, they allow the inserts to be autoclaved or sterilized. It would have been obvious to one of ordinary skill in the art at the time of the invention to make the contacting elements disclosed by Joeckel exchangeable so that they may be autoclaved or sterilized for dental use.

Claim 46 is rejected under 35 U.S.C. 103(a) as being unpatentable over Joeckel and Dworschak as applied to claims 1-3, 10-16, 26-31, 32-39, and 41-43 above, and further in view of Chevalier (DE 1284034)

Joeckel discloses the forceps described earlier, but fails to disclose contacting elements mounted for limited rotation. Chevalier discloses surgical forceps including contacting elements arranged on holders for limited universal movement, about an axis of rotation transverse to the clamping direction (Fig. 1-3). The stops allow small objects

to be gripped between the jaws. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the forceps disclosed y Joeckel with the contacting elements disclosed by Chevalier in order that the curved surface of the tooth to be extracted may more easily be gripped by the jaws.

Claims 32, 35, 40 and 46 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joeckel as applied to claims 1-3, 10-16, and 26-31 above, and further in view of Chevalier and Fuest (US 2,848,812).

Joeckel discloses the forceps described earlier, but fails to disclose that the contacting elements shaped with two contacting surfaces and arranged for rotation. Fuest discloses two contacting elements on dental plyers which are arranged adjacent each other and can place themselves on the tooth in the form of a point of line, parallel to the axis of rotation. Chevalier, as described earlier, teaches that limited rotational movement helps forceps to grip an object. It would have been obvious to one of ordinary skill at the time of the invention to modify the forceps disclosed by Joeckel with the contact surfaces disclosed by Fuest, because they are specifically designed to engage a tooth, and to modify the forceps with limited rotation so they can better grip the tooth, no matter the shape.

Claims 47 and 48 are rejected under 35 U.S.C. 103(a) as being unpatentable over Joeckel and Dworschak as applied to claims 1-3, 10-16, 26-31, 32-39, and 41-43 above, and further in view of Spitzer (US 6,022,348)

Joeckel discloses the forceps described earlier, but fails to disclose that the contacting surfaces are roughened or coated with diamond dust. Spitzer teaches that it is known to coat forceps, especially for tooth extraction operations, in order to exceed the clamping effect of mechanical roughnesses and in order to penetrate with the grain tips into the surface of the object being gripped (column 4, lines 19-39). Such a procedure inherently roughens the surfaces of the contacting elements. It would have been obvious to one of ordinary skill in the art at the time of the invention to roughen the surface of the contacting elements disclose by the Joeckel forceps with diamond dust in order to facilitate extraction of the tooth.

Allowable Subject Matter

Claims 5, 8, and 9 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Dowidat (US 2,733,624), Battenfeld (US 6,474,130), Battenfeld (US 4,794,780), Wang (US 5,964,130), Helmann (US 4,032,624), Sachatello et al. (US 6,976,992), Winterbottom et al. (US 2003/0083747), Ygfors (US 4,023,450), and Vuorinen (US 6,189,191) are made of record.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Casey Donahoe whose telephone number is (571) 272-2812. The examiner can normally be reached on Monday - Thursday (7:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272 -4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

CDP
2/21/06

Casey Donahoe
Examiner
Art Unit 3732

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Ralph A. Lewis
Primary Examiner
AU 3732